IN THE CLAIMS:

Kindly amend Claim 1 as follows:

1. (Twice Amended) A lateral metal-oxide semiconductor field effect transistor (MOSFET), comprising:

a silicon carbide layer located within or contacting a conductive substrate of a semiconductor wafer;

a gate formed on the silicon carbide layer; and

source and drain regions located in the silicon carbide layer and laterally offset from the gate.

REMARKS/ARGUMENTS

The Applicants have carefully considered this application in connection with the Examiner's Action mailed June 15, 2001, and hereby respectfully request reconsideration of this application in view of the foregoing amendment and the following remarks.

The Applicants originally submitted Claims 1-43 in the application. In response to a restriction requirement, the Applicants elected Claims 1-10 without traverse. The Applicants have amended Claim 1 in the present amendment. Accordingly, Claims 1-10 are currently pending in the application.

I. Rejection of Claims 1, 2 and 4-9 under 35 U.S.C. §102

The Examiner has rejected Claims 1, 2 and 4-9 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,326,991 to Takasu ("Takasu"). Takasu discloses a semiconductor device with a silicon carbide layer isolated from the silicon substrate by an insulating layer.

(Abstract). Such an insulating layer is, by definition, non-conductive. In contrast, the device disclosed in Claim 1 of the present application recites a silicon carbide layer located directly on or within a conductive substrate of a semiconductor wafer. Specifically, the silicon carbide layer disclosed in Claim 1 of the present application is not isolated from the substrate by an insulating layer, but is located within or in contact with the conductive substrate, which is in contrast to the teachings of Takasu.

Therefore, Takasu does not disclose each and every element of the claimed invention and as such, is not an anticipating reference. Because Claims 2 and 4-9 are dependent upon Claim 1, Takasu also cannot be an anticipating reference for Claims 2 and 4-9. Accordingly, the Applicants respectfully request the Examiner to withdraw the §102 rejection with respect to these Claims.

II. Rejection of Claims 1-10 under 35 U.S.C. §103

The Examiner has rejected Claims 1-10 under 35 U.S.C. §103(a) as being unpatentable over Takasu. However, as discussed above, Takasu does not disclose each and every element of Claim 1 of the present application. Takasu also does not teach or suggest all of the elements recited in Claim 1 of the present application. In fact, as stated above, Takasu explicitly teaches a device and structure that is in distinct contrast to the invention as recited in Claim 1. As previously discussed, Claim1 recites a structure wherein the silicon carbide is within or in contact with the conductive substrate as opposed to the device in Takasu in which the silicon carbide is located on a insulating field oxide.

Takasu Figures 3C, 6A-6E and 7 disclose a silicon carbide layer (indicated by reference number 22 and by dopant type indicators N and P) clearly isolated from the substrate (2) by an oxide layer (20). The isolation of the silicon carbide layer from the substrate is also explicit in the Takasu

text, which describes "a selective oxidation step of oxidizing the silicon substrate ... thereby cutting off the connection between the silicon carbide seed crystal layer and the silicon substrate" and similar descriptions. (Column 2, lines 34-39; column 2, lines 61-65; column 3, lines 5-9; column 4, lines 34-39; column 4, lines 53-55; column 6, lines 6-11; column 6, lines 32-42; and column 7, lines 3-6). Thus, because Takasu explicitly teaches a silicon carbide layer isolated from the substrate by a non-conductive oxide layer, its teachings are antithetical to a structure where the silicon carbide layer is located within or in contact with a conductive substrate of a semiconductor wafer as recited in Claim 1 of the present application, and therefore do not render the present inventions obvious.

Accordingly, Takasu fails to teach or suggest the invention recited in independent Claim 1 and its dependent claims, when considered as a whole. As such, Takasu fails to establish a prima facie case of obviousness with respect to Claims 1-10.

In view of the foregoing remarks, the cited references do not support the Examiner's rejection of Claims 1-10 under 35 U.S.C. §103(a). The Applicants therefore respectfully request the Examiner withdraw the rejection.

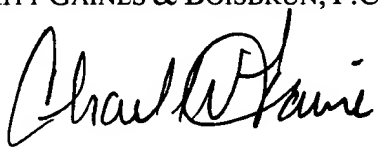
III. Conclusion

In view of the foregoing amendment and remarks, the Applicants now see all of the Claims currently pending in this application to be in condition for allowance and therefore earnestly solicit a Notice of Allowance for Claims 1-10.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "**Version with markings to show changes made.**"

Respectfully submitted,

HITT GAINES & BOISBRUN, P.C.



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VERSION WITH MARKINGS TO SHOW CHANGES MADE

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